LISP Hardware Breakout Group

Introduction

Way back in the past…

1970ies:
Motivation for LISP hardware

- LISP was too slow on stock hardware
- Stock hardware was not designed for LISP

A short history of LISP machines

- MIT CONS – 1975 LSI TTL
- MIT CADR – 1977 LSI TTL
- Symbolics 36xx – 1982 TTL + Bitslice (MSI)
- TI Explorer II – 1987 ASIC, 500k Gates
- Symbolics Ivory II – 1987 ASIC

End of story

Why did everybody stop?

- Stock hardware was no longer too slow
- Further increase in LISP machine performance required further LSI, which was too expensive

Time passes

- Symbolics, TI Lisp, Xerox Lisp die
- Unix becomes big (ugly is beautiful)
- Symbolics releases OpenGenera
- Windows prevails

2000s:
Motivation for LISP hardware

- LISP is too fast on stock hardware :)
- Stock hardware is not designed for LISP

Time passed

and hardware dramatically changed

- Reconfigurable hardware is cheaply available

- Hardware design processes are available to anyone

- 1 Mio reconfigurable gates cost 40 Euro